## ABSTRACT OF THE DISCLOSURE

A method of operating a computer system includes providing a program in memory, verifying the program prior to an installation of the program and generating a program fault signal when the verification fails. The program includes at least one program unit, and each program unit includes an Application Programming Interface (API) definition file and an implementation. Each API definition file defines items in its associated program unit that are made accessible to one or more other program units and each implementation includes executable code corresponding to the API definition file. The executable code includes type specific instructions and data. Verification includes determining whether a first program unit implementation is internally consistent, determining whether the first program unit implementation is consistent with a first program unit API definition file associated with the first program unit implementation and generating a program fault signal when the verifying fails. A resource-constrained device includes a memory for providing a remotely verified application software program that includes at least one program unit, each program unit comprising type specific instructions and data. The resource-constrained device also includes a virtual machine that is capable of executing instructions included within the application software program. The remote verification uses an API definition file for each implementation to determine whether a first program unit implementation is internally consistent and to determine whether the first program unit implementation is consistent with a first program unit API definition file associated with the first program unit implementation.